

**TECHNICAL REVIEW DOCUMENT**  
**For**  
**MODIFICATION TO OPERATING PERMIT 03OPGA267**

Encana Oil & Gas (USA) Inc. – Hunter Mesa Compressor Station  
Garfield County  
Source ID 0450367

Prepared by Bailey Smith  
August - October 2011

**I. Purpose:**

This document establishes the decisions made regarding the requested modifications to the Operating Permit for the Hunter Mesa Compressor Station. This document provides information describing the type of modification and the changes made to the permit as requested by the source and the changes made due to the Division's analysis. This document is designed for reference during review of the proposed permit by EPA and for future reference by the Division to aid in any additional permit modifications at this facility. The conclusions made in this report are based on the information provided in the requests for modification submitted to the Division on February 10, 2011 and September 19, 2011, various e-mail correspondence, and telephone conversations with the source. This narrative is intended only as an adjunct for the reviewer and has no legal standing.

Any revisions made to the underlying construction permits associated with this facility made in conjunction with the processing of this operating permit application have been reviewed in accordance with the requirements of Regulation No. 3, Part B, Construction Permits, and have been found to meet all applicable substantive and procedural requirements. This operating permit incorporates and shall be considered to be a combined construction/operating permit for any such revision, and the permittee shall be allowed to operate under the revised conditions upon issuance of this operating permit without applying for a revision to this permit or for an additional or revised construction permit.

**II. Description of Permit Modification Request/Modification Type**

The operating permit for the Hunter Mesa Compressor Station was issued on September 1, 2009. The modification, submitted February 10, 2011, and updated RACT analysis, submitted September 19, 2011, requested changes as follows.

Administrative

The source submitted information to change the facility's permit contact. An updated list of insignificant activity was also submitted.

### Engines

The modification application requested the addition of two natural gas compressor engines packages: CE05 and CE06. Engine CE05, covered under AIRS point 018, is a turbocharged, four-stroke lean burn engine with a nameplate rating of 3550 HP. Engine CE06, or AIRS point 019, is a turbocharged, four-stroke lean burn engine rated at 4735 HP. Each engine is equipped with an air/fuel ratio controller and an oxidation catalyst.

The application requests quarterly portable monitoring with the option to drop to a semi-annual frequency after passing four consecutive tests. The proposed parametric monitoring is daily for inlet catalyst temperature and monthly for catalyst pressure drop. Requested recordkeeping includes hours of operation on a daily basis and fuel consumption as recorded by the individual fuel meters installed on each engine, totaled monthly.

### Dehydration Units

Encana requested the addition of one new 150 MMscf/day triethylene glycol (TEG) dehydration unit and the removal of the existing dehydration units (S005, S006 and S007).

In the operating permit modification application, Encana proposed demonstrating compliance based on a monthly average overall control efficiency. The monthly average overall control efficiency will be based on a VRU capture efficiency of 98% and factor in VRU down time. Although a condenser is used, Encana proposed using a 0% control efficiency for times when the VRU is not operational. In accordance with the proposed compliance methodology discussed above, Encana also requested the removal of the requirement to operate the VRU at all times when gases, vapor and fumes are vented through the closed-vent system.

### Condensate Tanks

The addition of two 500 bbl condensate storage tanks and modification of the current permit conditions associated with TK01-TK04.

The new tanks, TK08 and TK09, will be added onto AIRS point 008 which currently includes TK01-TK04 and TK07. The modification application requested doubling the condensate throughput and annual emission limitations for the tank battery. Note that TK07 is an insignificant activity and was removed from the permit (and AIRS point 008) upon renewal of the permit.

The tank battery is control by the VRU. Encana proposed the condensate tanks use the same compliance demonstration approach as requested for the dehy unit, as discussed above.

Encana also requested the removal of the requirement to obtain API gravity documentation within the first 5 days of each month. Encana suggested the requirement specify that API gravity from one *representative* sales receipt shall be recorded monthly.

### Condensate Loadout

The source requested a doubling of the current throughput and emissions limits for condensate loadout.

### Fugitive Emissions

Encana submitted a revised component count based on a recent physical hard count of the facility and the additions of new equipment. The modification application requested a revision to the fugitive VOC emission limit based on the updated component count with an added factor of safety.

### Water Treatment and Recycling Facility

The source requested the modification of several permit conditions and limitations for the water treatment and recycling facility covered under point S012, or AIRS points 014 and 015. The requested revisions were based on emission testing results, changes to impoundment operations, and overall operating experience. With the RACT analysis submittal, Encana further requested changes to the throughput, emission limits, and calculation methodology, as well as the addition of a fourth impoundment.

Encana requested that the requirements for a combustion device for Dissolved Air Flotation (DAF) unit emissions be removed. Stack testing conducted on September 10, 2009 on the DAF unit indicated emissions below de minimums reporting levels.

Encana requested the impoundments be regrouped as shown in the table below. The proposed throughput and annual emissions limitation for each impoundment are as follows.

AIRS ID	Emission Unit	Throughput	Emission Limit
014	DAF Impoundments: North, South, and new	7,300,000 bbls/yr	261.9 tons/yr
015	Flowback Impoundment: Middle	5,475,000 bbls/yr	2.0 tons/yr

The North, South, and proposed new impoundments will receive DAF processed water. Encana requested all references to produced water for these impoundments be removed. The original permit required that VOCs from the impoundments be calculated using a mass balance of the sum of BTEX, methanol and TVH + TEPH. The above emissions for the DAF treated water impoundments were calculated using the AP-42 equation suite for non-aerated, non-oily, non-biomass surface impoundments.

The Middle Impoundment will receive flowback water and be equipped with a cover. Emissions from the Middle Impoundment were calculated using EPA Tanks, modeling the cover as an external floating roof and using an estimated TPH concentration of 1% by weight.

The original permit limited inlet concentrations of BTEX, methanol and TVH + TEPH. Encana requested these concentration limits be removed due to the inherent variability

in composition of produced and flowback water received at the facility. Encana feels that throughput and emissions limitations are sufficient in monitoring compliance. Encana requested the removal of the compliance test requirement given that the test has already been conducted.

#### CAM Plan

The source requested modifications of the CAM plan found in Appendix G of the permit. The request included a revision to the emission limitation listed in Section 1.b to the new permitted level and removal of the plan components associated with the combustion device.

Encana also proposed a new pressure operating range of 80 psi to 150 psi for the DAF unit.

#### Greenhouse Gases

This modification caused the facility's potential to emit greenhouse gases to exceed 100,000 tons per year CO<sub>2</sub>e. The modification itself was not in excess of 100,000 tons per year CO<sub>2</sub>e and therefore the greenhouse gas rules do not currently apply. Future modifications greater than 75,000 tons per year CO<sub>2</sub>e may be subject to regulation.

#### Facility Implications

The resulting facility wide potential emissions are as follows. Note that the uncovered evaporation ponds are considered fugitive sources, which are not included for the purpose of determining if this facility is a major stationary source per Regulation No. 3, Part D, Section II.A.24, and the covered Middle impoundment is considered a point source.

Facility ID	Emission Unit	NO <sub>x</sub>	VOC	Fugitive VOC	CO	HAPs
CE01	Engine 3506 HP	27.8	28.3		24.6	7.6
CE02	Engine 3506 HP	27.8	28.3		24.6	4.3
CE03	Engine 3506 HP	27.8	28.3		24.6	4.3
CE04	Engine 3506 HP	27.8	28.3		24.6	4.3
CE05	Engine 3550 HP	24.0	24.0		6.0	4.4
CE06	Engine 4735 HP	22.9	32.0		8.8	5.9
DU04	Dehy 150 MMscf/day		10.5			5.2
S008	Condensate Tank Battery		27.2			
S009	Fugitive VOC Emissions			30.3		
S010	Condensate Loadout			5.6		
S011	Condensate Tanks		4.0			
S012	North and South Ponds			261.9		159.6
S012	Middle Pond		2.0			
Total		158.1	212.9	297.8	113.2	195.6
Total VOC			510.7			

## RACT

A revised RACT analysis was submitted on September 19, 2011 for the water treatment and recycling facility. The revised analysis accounts for the additional impoundment, the increase in throughput and associated emissions increase, as well as the absence of a combustion device. RACT for this unit is a dissolved air flotation unit to treat produced water prior to entering the North, South, and new impoundments and a cover for the Middle impoundment.

## Source Determination

With this permit action, the Division revisited the source determination in regards to natural gas operations in the area surrounding the Hunter Mesa facility. Encana identified three wells of potential concern in the Hunter Mesa vicinity that warranted further analysis. The Division examined the proximity, interdependence and surface rights agreements of the well pads. Natural gas from each of the three wells identified can be sent to one of several compressor stations in the area, and is not operationally dependent on any one of the individual compressor stations. The land occupied by the compressor station and each well pad is leased on an individual basis through surface use agreements with the land owners. The property boundary, in terms of Encana's control, is contained to the fence line of the compressor station and each well pad. Since the property that lies between the Hunter Mesa facility and the wells is neither owned nor controlled by Encana, the two sites cannot be considered contiguous. Based on these findings, the Division considers the initial determination for the facility to be sufficient.

## **III. Modeling**

Modeling of NO<sub>x</sub> emissions was conducted for this facility in 2010 for the addition of the two compressor engines, CE05 and CE 06. The modeling analysis demonstrated that the modification would not cause or contribute to a violation of ambient air quality standard for all pollutants and averaging times that were applicable requirements at the time. Since the construction permit application was submitted prior to April 12, 2010, the Division does not consider compliance with the hourly NO<sub>2</sub> primary NAAQS an applicable requirement. The addition of the TEG dehydrator and two new condensate storage tanks will not result in NO<sub>x</sub> or CO emissions and therefore modeling is not necessary for the addition of these units.

#### **IV. Discussion of Modifications Made**

##### **Source Requested Modifications**

The Division addressed the source's requested modifications as follows:

Page following cover page

- Revised the permit contact information in accordance with the information submitted with the modification application.

##### **Section I – General Activities and Summary**

- Revised the facility description in Condition 1.1 to address the addition of the engines, TEG unit and condensate tanks.
- Added the two new engines to the table of engines with AOS ability, per Construction Permit 10GA1221 and 10GA1222.
- Added the new equipment and removed dehys in the summary of emission units in Condition 6. The grouping of impoundments in the water treatment and recycling facility were also updated.

##### **Section II.1 – Engines**

- The modification application was prepared prior to the issuance date of the engine's construction permits and therefore did not mention the pending construction permits. The construction permits have since been issued and will be rolled into the operating permit. Colorado Construction Permits 10GA1221 and 10GA1222, which correspond to engines CE05 and CE06, respectively, were issued on January 12, 2011. Under the provisions of Regulation No. 3, Part C, Section V.A.3, the Division will not issue a final approval construction permit and is allowing the initial approval construction permit to continue in full force and effect. The appropriate provisions of the initial approval construction permits have been directly incorporated into this operating permit as follows:

###### *Construction Permit 10GA1221 & Construction Permit 10GA1222*

- Submit a notice of startup (Condition 1). These engines have already been installed and a notice of startup has been submitted to the Division. This condition was not included in the operating permit.
- Self-certify compliance with the permit requirements within 180 days of startup. (Condition 2). The first semi-annual monitoring report submitted after the modified Title V permit is issued will serve as the self certification that these units can comply with the provisions in their permit. This condition was not included in the operating permit.

- The permit shall expire if construction does not commence or conclude in a timely fashion (Condition 3). Construction of the engines has already been completed. This condition was not included in the operating permit.
- Results of initial compliance testing and sampling must be submitted with the self-certification (Condition 4). As mentioned above, the first compliance report will serve as self-certification, and therefore this condition was not included in the operating permit.
- The serial number of the engine shall be submitted within 30 days of startup (Condition 5). The serial numbers for both engines were submitted and have been included in the permit in the summary of emission units in Section I, Condition 6. Since the serial numbers have already been submitted, this condition was not included in the permit.
- The final authorization letter issued by the Division will provide authority for the operation of this source (Condition 6). As mentioned above, a final approval construction permit will not be issued. Accordingly, this condition was not included in the operating permit.
- Emissions of air pollution shall not exceed the following limitations (Condition 7):

Engine CE05 (Construction Permit 10GA1221):

NO <sub>x</sub>	4,076 lbs per month	24.0 tons per year
VOC	2,970 lbs per month	17.5 tons per year
CO	1,019 lbs per month	6.0 tons per year

Engine CE06 (Construction Permit 10GA1222):

NO <sub>x</sub>	3,883 lbs per month	22.9 tons per year
VOC	4,077 lbs per month	24.0 tons per year
CO	1,495 lbs per month	8.8 tons per year

These emission limitations were added to the operating permit under Section II, Condition 1.1. Note that these short term emission limits are only applicable for the first twelve months of operation.

- The engine shall be equipped with an oxidation catalyst and air/fuel ratio controller (Condition 8). The requirement to control VOC and CO emissions was included in the operating permit.
- The source shall be limited to the following maximum natural gas consumption rates (Condition 9):

CE05	22.0 MMscf per month	259.0 MMscf per year
CE06	29.7 MMscf per month	350.0 MMscf per year

These natural gas consumption limits were added to the operating permit in Section II, Condition 1.2. Note that these short term emission limits are only applicable for the first twelve months of operation.

- The permit number shall be marked on the equipment (Condition 10). This is a construction permit only requirement which has already been fulfilled and therefore was not included in the permit.
- Visible emissions shall not exceed 20% opacity during normal operation of the source. During periods of startup, process modification, or adjustment of control equipment visible emissions shall not exceed 30% opacity for more than six minutes in any sixty consecutive minutes (Condition 11).

The 30% opacity requirement has been included in the operating permit only for startup of this unit. Based on engineering judgment, the Division considers this the only specific activity under which the 30% opacity condition applies.

- This source is subject to the odor requirements of Regulation No. 2 (Condition 12). This requirement is included in the General Conditions of Section IV and therefore was not included in the specific conditions of the operating permit.
- The source is subject to the major source requirements of NESHAP Subpart ZZZZ for Internal Combustion Engines as well as the General Provisions in NESHAP Subpart A (Condition 13). The applicable requirements of both subparts have been included in the operating permit.

Note that the date has been removed from the Subpart ZZZZ initial testing requirements, which was applicable to engine CE-02.

- Follow the operating and maintenance (O&M) plan (Condition 14). The appropriate requirements from the O&M plan have been incorporated into the operating permit and a specific requirement to follow an external O&M plan was not included. The previously issued O&M plan is no longer in effect.
- Initial testing requirements (Condition 15). Requirements for an initial performance test were included in the operating permit.
- Periodic testing requirements (Condition 16). Monitoring requirements were included in the operating permit without reference to the O&M plan.
- APEN reporting requirements (Condition 17). The APEN reporting requirements were not identified in the permit as a specific condition but are included in Section IV (General Conditions) of the permit under Condition 22.e.
- The minimum stack height shall be 40 feet (dual stack) (Condition 18). This requirement was included in the permit.

- The facility shall be completely enclosed by a fence (Condition 19). This was included in Condition 9.1 as a facility wide requirement.
- The source is subject to operating permit requirements (Condition 20). With this action, the engines are being incorporated into the operating permit. This requirement was not included in the permit.
- PSD shall apply at any time the source becomes major by virtue of relaxation (Condition 21). This condition was not included in the operating permit, since no actual requirements apply, unless certain modifications to the permit conditions for this facility are made. Although this requirement will not be included in the permit, future modifications that cause the Hunter Mesa facility to become major, for purposes of PSD, by virtue of relaxation of any of these permit conditions in Construction Permit 10GA1221 and 10GA1222 will result in the application of PSD review. This specification was included in Section I, Condition 3 with the PSD status information.
- The general terms and conditions (Condition 22 – 28) were not included in the operating permit. The operating permit has general conditions applicable to the facility listed in Section IV.
- Some of the engines are subject to Colorado Regulation No. 7, Section XVII.E.2.b which requires new engines constructed after July 1, 2010 to limit NO<sub>x</sub>, CO and VOC emissions to 1, 2, and 0.7 g/hp-hr, respectively. This requirement was not specifically mentioned in the construction permits; however, these emission standards are embedded in the annual emissions limits set by the permit as well as the requirements of NSPS JJJJ. The citation for this requirement was included in the emission limitations condition.
- Some of these engines are also subject to NSPS Subpart JJJJ for new spark ignition engines. Requirements are based on the manufacture date of the engines. The applicable requirements from Subpart JJJJ were added to the permit.

## Section II.2 – Dehydrator

- As with the engines, the modification application did not mention the pending construction permit for the dehydrator. However, Colorado Construction Permit 10GA1223 was issued on January 12, 2011 for the new 150 MMscf/day TEG dehydration unit. Under the provisions of Regulation No. 3, Part C, Section V.A.3, the Division will not issue a final approval construction permit and is allowing the initial approval construction permit to continue in full force and effect. The appropriate provisions of the initial approval construction permit have been directly incorporated into this operating permit as follows:
  - Submit a notice of startup (Condition 1). The dehydration unit has already become operational and a notice of startup has been submitted to the Division. This condition was not included in the operating permit.

- Self-certify compliance with the permit requirements within 180 days of startup. (Condition 2). The first semi-annual monitoring report submitted after the modified Title V permit is issued will serve as the self certification that this unit can comply with the provisions in the permit. This condition was not included in the operating permit.
- The permit shall expire if construction does not commence or conclude in a timely fashion (Condition 3). Construction of the dehydrator has already been completed. This condition was not included in the operating permit.
- Results of initial compliance testing and sampling must be submitted with the self-certification (Condition 4). As mentioned above, the first compliance report will serve as self-certification, and therefore this condition was not included in the operating permit.
- The final authorization letter issued by the Division will provide authority for the operation of this source (Condition 5). As mentioned above, a final approval construction permit will not be issued. Accordingly, this condition was not included in the operating permit.
- Emissions of air pollution shall not exceed the following limitations (Condition 6):

VOC	1,784 lbs per month	10.5 tons per year
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These emission limitations were added to the operating permit under Section II, Condition 2.1. Note that the short term emission limit is only applicable for the first twelve months of operation.

- Compliance shall be demonstrated using GRI GlyCalc (Condition 7). The operating permit includes requirements to calculate emission on a monthly basis using several monitored parameters in GRI GlyCalc.
- The unit shall be configured such that the flash tank vapors are routed to the VRU and still vent vapors are routed to an air-cooled condensate then the VRU (Condition 8). The emission limits were based on a 95% control efficiency and the requirement to control VOC emissions to such an extent was included in the operating permit, as requested by the source. This unit is subject to Colorado Regulation No. 7, Section XVII.D, as identified in construction permit condition 14, which specifies the dehydration unit shall be equipped with control device that controls 90% of emissions. This less stringent control requirement was included in the streamlined conditions in Section III of the permit.
- The source shall be limited to the following maximum natural gas throughput rates (Condition 9):

DU04	4,650 MMscf per month	54,750 MMscf per year
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These natural gas throughput limits were added to the operating permit in Section II, Condition 2.2. Note that the short term emission limit is only applicable for the first twelve months of operation.

- The source shall be limited to a maximum lean glycol recirculation rate as calculated per 40 CFR §63.764(d)(2) (Condition 10). The condition also specifies if the source is exempt from the requirements of §63.764(d)(2), the maximum recirculation rate shall not exceed 12 gallons per minute. The source qualifies for this exemption and is therefore limited to 12 gpm, which was included in the operating permit.
- The permit number shall be marked on the equipment (Condition 11). This is a construction permit only requirement which has already been fulfilled and therefore was not included in the permit.
- Visible emissions shall not exceed 20% opacity during normal operation of the source. During periods of startup, process modification, or adjustment of control equipment visible emissions shall not exceed 30% opacity for more than six minutes in any sixty consecutive minutes (Condition 12). This requirement was included in the operating permit.
- This source is subject to the odor requirements of Regulation No. 2 (Condition 13). This requirement is included in the General Conditions of Section IV and therefore was not included in the specific conditions of the operating permit.
- The dehydrator is subject to the minor source requirements of NESHAP Subpart HH for Oil and Natural Gas Production (Condition 15 and 16). The controlled PTE is below the threshold for exemption from the Lopt requirements as listed in condition 15. The applicable exemption provisions from condition 16 have been included in the operating permit.
- Follow the operating and maintenance (O&M) plan (Condition 17). The appropriate requirements from the O&M plan have been incorporated into the operating permit and a specific requirement to follow an external O&M plan was not included. The previously issued O&M plan is no longer in effect.
- Initial gas analysis requirements (Condition 18). Extended wet gas analyses are required on a quarterly basis; therefore the requirement for an initial analysis was not included in the operating permit.
- The source shall conduct an extended wet gas analysis on an annual basis (Condition 19). This requirement was included in the operating permit.
- The operator shall cancel construction permit 04GA0026 and AIRS point 020 within 30 days of the new dehy becoming operational (Condition 20). Encana submitted a cancellation request for AIRS point 020 and its

associated construction permit, therefore this requirement was not included in the operating permit.

- APEN reporting requirements (Condition 21). The APEN reporting requirements were not identified in the permit as a specific condition but are included in Section IV (General Conditions) of the permit under Condition 22.e.
- The source is subject to operating permit requirements (Condition 22). With this action, the dehy is being incorporated into the operating permit. This requirement was not included in the permit.
- PSD shall apply at any time the source becomes major by virtue of relaxation (Condition 21). This condition was not included in the operating permit, since no actual requirements apply, unless certain modifications to the permit conditions for this facility are made. Although this requirement will not be included in the permit, future modifications that cause the Hunter Mesa facility to become major, for purposes of PSD, by virtue of relaxation of any of these permit conditions in Construction Permit 10GA1223 will result in the application of PSD review. This specification was included in Section I, Condition 3 with the PSD status information.
- MACT Subpart HH shall apply at such time the source becomes major solely by virtue of relation in any permit limit (Condition 24). This condition will not be included in the permit as it is not an applicable requirement. Regardless of whether the conditions in this construction permit are relaxed, once the facility exceeds the major source threshold for HAPs, major source MACT requirements apply. In addition, although this facility is already major for HAPs, for purposes of Subpart HH, the source is considered an area source. While this facility is not considered a major source for Subpart HH, the MACT applies to both major and area sources of HAPs. Therefore, the appropriate applicable MACT requirements for area sources have been included in the permit.
- The general terms and conditions (Condition 22 – 28) were not included in the operating permit. The operating permit has general conditions applicable to the facility listed in Section IV.
- Downtime is an inherent component of the implementation of vapor recovery systems. The original permit required Encana to report emissions during periods when the VRU was not operational as excess emissions. The proposed compliance demonstration methodology accounts for this regular occurrence in monthly emission calculations. The Division believes this approach will closely reflect actual operating conditions and effectively monitor compliance with annual emission limitations as well as control efficiency requirements. Therefore, the proposed compliance demonstration approach was included in the permit.

- Upon startup of the new dehydration unit, three existing dehys covered under AIRS point 013 (S005, S006 and S007) were removed. All references to these dehydrators and their underlying construction permit, 04GA0026, were removed from the operating permit.

### Section II.3 – Condensate Tanks

- The new condensate tanks were added to the battery. Annual emission limits and throughput were increased as requested.
- Condensate tank TK07 was identified in the modification application as insignificant activity and was removed from the permit accordingly.
- The API gravity, as recorded monthly, is used in the monthly emissions calculations. Considering that the monthly emission calculations are not required to occur within 5 days of the beginning of the month, the Division feels it is not necessary to record the API gravity within this timeframe. Therefore, the requirement to record the API gravity within the first 5 days of the month was removed.
- As explained above, the proposed compliance demonstration approach accounting for VRU downtime is accepted by the Division and was included in the permit.
- Due to the increase in capacity and throughput of the tank battery, Reg 7. Section XVII.C is now applicable. This state-only provision requires the tanks to be equipped with a control device that achieves an average 95% control efficiency. The averaging time is not specified in the regulation; however, since its applicability is based on annual emissions, it can be presumed that the control efficiency should be averaged on an annual basis. This requirement is less stringent than the monthly average control efficiency requirement and therefore the requirement of XVII.C.1 was included in the streamlined conditions. However, the recordkeeping requirements from XVII.C.4 were included in the specific permit conditions.

### Section II.4 – Fugitive Emissions

- The annual emissions limit for fugitive emissions was adjusted in accordance with the most recent fugitive component hardcount with an added 20% factor of safety to account for small component count changed or changed in the VOC weight percent at this facility.

### Section II.5 – Condensate Loadout

- The throughput and annual emission limits were increased as requested.

## Section II.7 – Water Treatment and Recycling Facility

- The Division agrees with Encana's determination regarding the effectiveness of the combustion device that follows the DAF unit. Since the emissions from the DAF unit are well below the de minimus reporting level, the Division does not consider it pragmatic to control these emissions. The requirement to operate the combustion device and all references to the device were removed.
- The impoundments were regrouped as requested. The capacity for an additional pond was included in the permit. Requirements associated with the construction and startup of the new impoundment were also included in the permit.
- The emissions limits and throughput for the newly grouped impoundments were adjusted as requested.
- References to produced water were removed from the permit as requested in the modification application.
- The inlet concentration limits were removed from the permit due to the inherent variability of inflow to the impoundments.
- The Division believes the AP-42 calculation methodology, as requested by EnCana, is a more accurate estimation of fugitive emissions than the mass-balance approach and has been included in the permit.
- The odor requirements from Regulation No. 2 were removed to eliminate redundancy. These requirements are already included in the General Conditions of the permit.
- Requirements for the cover installed on the Middle Impoundment were added to the permit.

## Section II.8 – CAM Plan

- The updated pressure operating range of 80 to 150 psi was included and the combustion device was removed as request.

## Appendices

- The insignificant activities list in Appendix A was updated in accordance with the information submitted in the modification application.
- Updated the tables in the reports in Appendix B and C to reflect the new equipment.
- The CAM plan in Appendix G was revised to reflect the updated pressure operating range of 80 to 150 psi and the removal of the combustion device.

## **Other Modifications**

In addition to the requested modifications made by the source, the Division used this opportunity to include changes to make the permit more consistent with recently issued permits, include comments made by EPA on other Operating Permits, as well as correct errors or omissions identified during inspections and/or discrepancies identified during review of this modification.

The Division has made the following revisions, based on recent internal permit processing decisions and EPA comments on other permits, to the Hunter Mesa Operating Permit with the source's requested modifications.

### **Section II – Specific Permit Terms**

- The opacity limitation for the engines was updated to reflect the 30% limit during special conditions.
- The NSPS Subpart JJJJ requirements have not yet been adopted by the state and are therefore not state enforceable. A note has been added under the condition to specify its federal-only status.
- In accordance with an AOS submitted September 6, 2011 and October 5, 2011, the serial numbers for engines CE-06 and CE-01, respectively, were updated. The replacement engine for CE-01 is subject to the requirements of NESHAP Subpart ZZZZ.

### **Section IV – General Permit Conditions**

- Updated the general permit conditions to the current version (11/16/2010).

### **Appendices**

- Revised the list of Appendices in the page preceding the start of Appendix A.
- Updated the mailing ATTN for the Division to Matt Burgett in Appendix D.